

Amendments To The Claims:

1. (Currently Amended) A method of making an ePTFE tubular structure comprising the following steps:

forming a tube of polytetrafluoroethylene having a luminal surface and an abluminal surface;

longitudinally stretching said polytetrafluoroethylene tube to form an expanded polytetrafluoroethylene tube, wherein said expanded polytetrafluoroethylene tube is comprised of fibrils having a first length and an oriented direction of said expanded polytetrafluoroethylene tube and nodes having a first length and oriented in a circumferential direction of said expanded polytetrafluoroethylene tube;

placing said expanded polytetrafluoroethylene tube circumferentially ~~exterior to~~ around a longitudinal foreshortening and radially expanding mechanism;

applying radial pressure from said longitudinal foreshortening and radially expanding mechanism; and

radially expanding and longitudinally foreshortening said expanded polytetrafluoroethylene tube over said longitudinal foreshortening and radially expanding mechanism by using said mechanism to apply an outwardly directed force to said luminal surface of said polytetrafluoroethylene tube to increase said first length of said nodes of said expanded polytetrafluoroethylene tube to a second length in the circumferential direction, ~~and~~ to shift said fibrils of said expanded polytetrafluoroethylene tube non-longitudinally by hingeably rotating said fibrils of said expanded polytetrafluoroethylene tube and to form an ePTFE tubular structure with reoriented fibrils;

wherein said reoriented fibrils of said ePTFE tubular structure have a second length substantially equal to said first length of said fibrils of said expanded polytetrafluoroethylene tube.

2. (Previously Presented) The method according to claim 1 wherein said expanded polytetrafluoroethylene tube is heated to a temperature of between about 86°F and 650°F during the radially expanding and longitudinal foreshortening step.

3. (Cancelled)

4. (Cancelled)

5. (Previously Presented) The method to claim 1 wherein said reoriented fibrils having a

substantially same shape as a shape of originally longitudinally oriented fibrils.

6. (Previously Presented) The method according to claim 1 wherein said ePTFE tubular structure with reoriented fibrils is capable of being longitudinally elongated by at least about a factor of 1.5.

7. (Previously Presented) The method according to claim 6 wherein ePTFE tubular structure with reoriented fibrils is capable of being longitudinally elongated by at least about a factor of 2.0.

8. (Previously Presented) The method according to claim 7 wherein ePTFE tubular structure with reoriented fibrils is capable of being longitudinally elongated by at least about factor 2.5.

9. (Previously Presented) The method according to claim 1 wherein said ePTFE tubular structure with reoriented fibrils is capable of radially expanded by at least about a factor of 1.5.

10. (Previously Presented) The method according to claim 9 wherein said ePTFE tubular structure with reoriented fibrils is capable of radially expanded by at least about a factor of 2.0.

11. (Previously Presented) The method according to claim 10 wherein said ePTFE tubular structure with reoriented fibrils is capable of radially expanded by at least about a factor of 2.5.

12. (Canceled)

13. (Canceled)

14. (Previously Presented) The method according to claim 1 further including a step of suspending and heating said expanded polytetrafluoroethylene tube after longitudinal expansion and prior to placing said expanded polytetrafluoroethylene tube on said longitudinal foreshortening and radially expanding mechanism.

15. (Original) The method according to claim 14 wherein said heating step increases structural integrity of said ePTFE tubular structure.

16. (Currently Amended) A method of making an ePTFE tubular structure comprising the following steps:

forming a tube of polytetrafluoroethylene having a luminal surface and an abluminal surface;

longitudinally stretching said polytetrafluoroethylene tube to form an expanded polytetrafluoroethylene tube, wherein said expanded polytetrafluoroethylene tube is comprised of fibrils oriented in a longitudinal direction of said expanded polytetrafluoroethylene tube and nodes oriented in a circumferential direction of said expanded polytetrafluoroethylene tube;

placing said expanded polytetrafluoroethylene tube circumferentially ~~exterior to~~ around a longitudinal foreshortening and radially expanding mechanism;

applying radial pressure to said luminal surface of said polytetrafluorethylene tube from said longitudinal foreshortening and radially expanding mechanism;

radially expanding and longitudinal foreshortening said expanded polytetrafluoroethylene tube over said longitudinal foreshortening and radially expanding mechanism;

heating said expanded polytetrafluoroethylene tube to a temperature of between about 86°F and 650°F during radially expansion; and

reorienting said fibrils non-longitudinally to form an ePTFE tubular structure with reoriented fibrils that are hingeably rotated about said nodes.

17. (Previously Presented) The method according to claim 16 wherein the step of heating said expanded polytetrafluoroethylene tube is at a temperature of between about 200°F and 350°F during radial expansion.

18. (Currently Amended) A method of making an ePTFE tubular structure comprising the following steps:

forming a tube of polytetrafluoroethylene having a luminal surface and an abluminal surface;

longitudinally stretching said polytetrafluoroethylene tube to form an expanded polytetrafluoroethylene tube, wherein said expanded polytetrafluoroethylene tube is comprised of fibrils oriented in a longitudinal direction of said expanded polytetrafluoroethylene tube and nodes oriented in a circumferential direction of said expanded polytetrafluoroethylene tube;

placing said expanded polytetrafluoroethylene tube circumferentially ~~exterior to~~ around a longitudinal foreshortening and radially expanding mechanism; and

applying radial pressure to said luminal surface of said polytetrafluorethylene tube from said longitudinal foreshortening and radially expanding mechanism to radially expand said expanded polytetrafluoroethylene tube over said longitudinal foreshortening and radially expanding mechanism to reorient said fibrils non-longitudinally to form an ePTFE tubular structure with reoriented fibrils that fibrils are hingeably rotated about said nodes;

wherein said ePTFE tubular structure with reoriented fibrils has an altered nodal orientation having a greater length between said nodes as compared to said expanded

polytetrafluoroethylene tube.

19. (Previously Presented) The method according to claim 18 further comprising;
heating said expanded polytetrafluoroethylene tube to a temperature of between about 86°F and 650°F during radial expansion.

20 (Previously Presented) The method according to claim 1 wherein said reoriented fibrils of said ePTFE tubular structure are longitudinally straighter than said fibrils of said expanded polytetrafluoroethylene tube.